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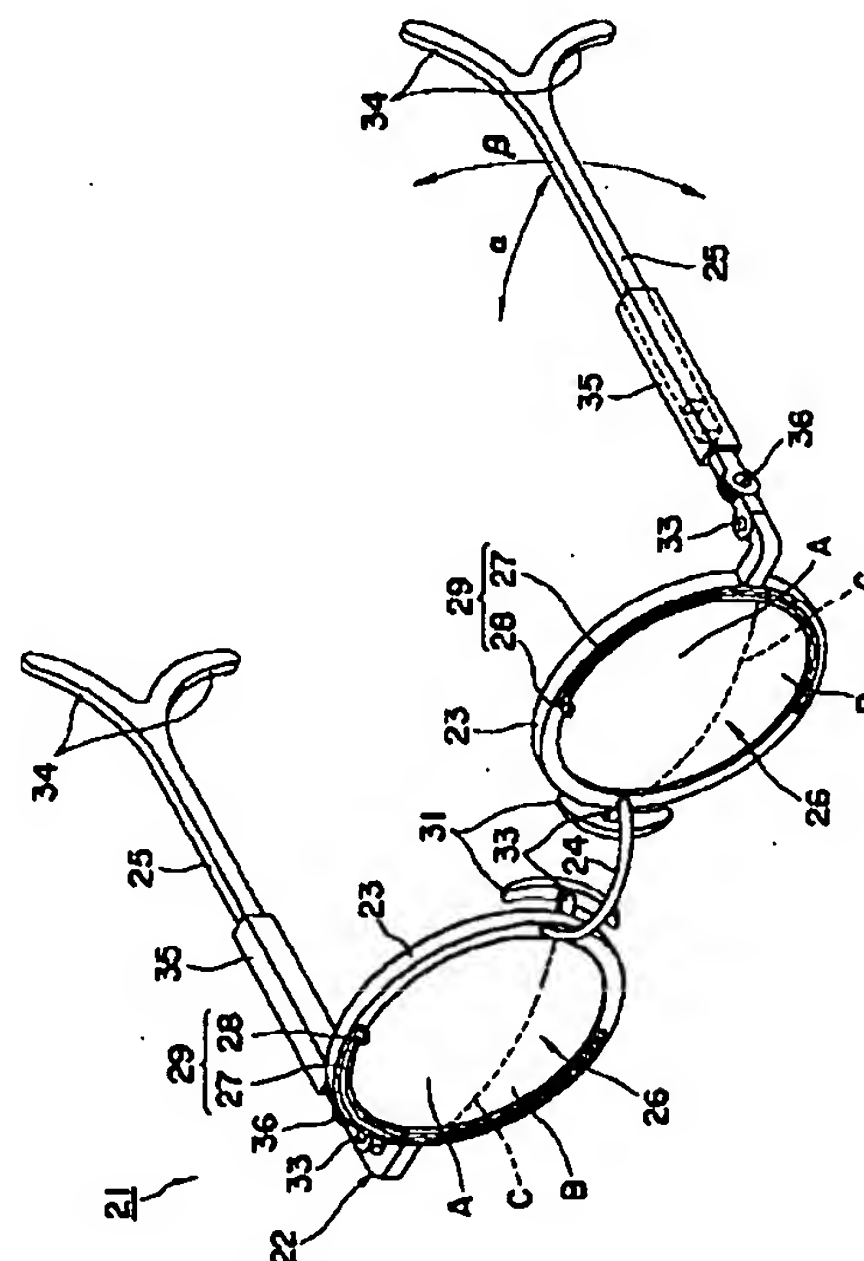
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(54)【発明の名称】 遠近両用眼鏡

(57)【要約】

【目的】一定の視線角度で遠近両方を見れるようにする。

【構成】上下一側に遠用領域Aが設けられ、他側に近用領域Bが設けられた左右一対のレンズ5(26)をフレーム2(22)のリム部3(23)に設けた遠近両用眼鏡1(21)において、上記レンズ5(26)の上下向きを反転できるように、レンズ5(26)を上記リム部3(23)内で回転可能に保持した。その際、レンズ5(26)の上下向きを位置決めする位置決め手段12(29)を設けた。また、フレーム(22)全体の上下向きを反転させても使用可能なように、鼻当て部(31)および耳当て部(33)を上下2方向に形成するとともに、フレーム(22)のテンプル部(25)の長さを調節可能にする長さ調節手段(34)と、テンプル部(25)の角度を調節可能にする角度調節手段(35)を設けた。



【特許請求の範囲】

【請求項1】 上下一側に遠用領域が設けられ、他側に近用領域が設けられた左右一対のレンズをフレームのリム部に設けた遠近両用眼鏡において、上記レンズの上下向きを反転できるように、レンズを上記リム部内で回転可能に保持したことを特徴とする遠近両用眼鏡。

【請求項2】 上記レンズの上下向きを位置決めする位置決め手段を設けた請求項1に記載の遠近両用眼鏡。

【請求項3】 上記フレーム全体の上下向きを反転させても使用可能なように、鼻当て部および耳当て部を上下2方向に形成した請求項1に記載の遠近両用眼鏡。

【請求項4】 フレームのテンプル部の軸方向長さを調節可能にする長さ調節手段を設けた請求項1に記載の遠近両用眼鏡。

【請求項5】 上記テンプル部の角度を調節可能にする角度調節手段を設けた請求項1に記載の遠近両用眼鏡。

【請求項6】 上下一側に遠用領域が設けられ、他側に近用領域が設けられた左右一対のレンズをフレームのリム部に設けた遠近両用眼鏡において、上記フレーム全体の上下向きを反転させても使用可能なように、鼻当て部および耳当て部を上下2方向に形成したことを特徴とする遠近両用眼鏡。

【請求項7】 上記フレームのテンプル部の軸方向長さを調節可能にする長さ調節手段を設けた請求項6に記載の遠近両用眼鏡。

【請求項8】 上記テンプル部の角度を調節可能にする角度調節手段を設けた請求項6に記載の遠近両用眼鏡。

【発明の詳細な説明】

【0001】

【産業上の利用分野】本発明は、一定の視線角度で遠近両方を見れるようにした遠近両用眼鏡に関する。

【0002】

【従来の技術】一般的な遠近両用眼鏡は、レンズの上側に遠用領域が、下側に近用領域が設けられており、遠くを見る場合は視線をほぼ水平にして遠用領域を使用し、手元を見る場合は視線を下げて近用領域を使用するようになっている。

【0003】

【発明が解決しようとする課題】しかしながら、このような遠近両用眼鏡を用いて長時間手元を見続ける必要がある場合（読書や製図等の作業を行う時）には、視線を長い間下向きに保たなければならないので眼が非常に疲れてくるという難点がある。

【0004】本発明は、上記問題点を解決するためになされたもので、一定の視線角度で遠近両方を見れる遠近両用眼鏡を提供することを目的とする。

【0005】

【課題を解決するための手段】上記目的を達成するために、本発明に係る遠近両用眼鏡は、請求項1に記載したように、上下一側に遠用領域が設けられ、他側に近用領

域が設けられた左右一対のレンズをフレームのリム部に設けた遠近両用眼鏡において、上記レンズの上下向きを反転できるように、レンズを上記リム部内で回転可能に保持した。

【0006】また、請求項2に記載したように、上記レンズの上下向きを位置決めする位置決め手段を設けた。

【0007】さらに、請求項3に記載したように、上記フレーム全体の上下向きを反転させても使用可能なように、鼻当て部および耳当て部を上下2方向に形成した。

【0008】そして、請求項4に記載したように、フレームのテンプル部の軸方向長さを調節可能にする長さ調節手段を設けた。

【0009】また、請求項5に記載したように、上記テンプル部の角度を調節可能にする角度調節手段を設けた。

【0010】さらに、請求項6に記載したように、上下一側に遠用領域が設けられ、他側に近用領域が設けられた左右一対のレンズをフレームのリム部に設けた遠近両用眼鏡において、上記フレーム全体の上下向きを反転させても使用可能なように、鼻当て部および耳当て部を上下2方向に形成した。

【0011】そして、請求項7に記載したように、上記フレームのテンプル部の軸方向長さを調節可能にする長さ調節手段を設けた。

【0012】また、請求項8に記載したように、上記テンプル部の角度を調節可能にする角度調節手段を設けた。

【0013】

【作用】上記構成を持つ遠近両用眼鏡を用いる場合、遠くを見る時は視線が遠用領域を通るようにレンズの上下向きを合わせ、手元を見る時は視線が近用領域を通るようにレンズの上下向きを合わせれば、遠くを見る時も手元を見る時も常に一定の視線角度で見ることができる。

【0014】また、レンズの上下向きを位置決めする位置決め手段を設けたことにより、レンズの上下向きを迅速に合せることができる。

【0015】さらに、フレーム全体の上下向きを反転させても使用できるため、リム部内でレンズのみを回転させる、もしくはフレーム全体の上下向きを反転させるという2通りの方法でレンズの遠用領域と近用領域の位置を入れ替えることができる。

【0016】しかも、テンプル部の長さ調節手段および角度調節手段を設けたことにより、フレーム全体の上下向きを反転させて着用する場合でも違和感がない。

【0017】

【実施例】以下、本発明の一実施例を図面に基づいて説明する。

【0018】図1および図2は本発明の第1実施例を示す遠近両用眼鏡の正面図であり、図3は図1のIII-III線に沿う断面図である。この遠近両用眼鏡1は、フレー

ム2のリム部3に設けられた左右一対の開口部4に円形のレンズ5が回転可能に保持されている。なお、左右のレンズ5の間には鼻当て部6がリム部3と一体的に形成されている。

【0019】レンズ5の上下一側には遠用領域Aが設けられ、他側には近用領域Bが設けられている。上記遠用領域Aは手元よりも遠くを見るため領域であり、この領域には近視や乱視等に適合するレンズが設けられるか、あるいは度のない素通しの部分が設けられる。一方、近用領域Bには遠視の場合でも手元を見ることのできるレンズが設けられる。なお、破線Cは遠用領域Aと近用領域Bの境界線を示している。この境界線Cの位置は、例えば遠用領域Aの面積が近用領域Bの面積よりも大きくなるように直線状に設けられているが、境界線Cの位置をずらしたり、境界線Cを湾曲させることなどによって、遠用領域Aと近用領域Bの面積比や形状を変化させることもできる。また、例えば図2に示すように、遠用領域A（あるいは近用領域B）に別な種類のレンズ領域Dを設けても良い。

【0020】図3に示すように、レンズ5の周部はリム部3のフランジ7、8に挟まれて回転可能に保持されている。ここで、前側のフランジ7には左右のレンズ5の外側半周に沿うガイド溝9が形成されており（図1、2参照）、レンズ5の縁部に突設された突片11が上記ガイド溝9から前方に突出している。このガイド溝9および突片11は、レンズ5の上下向きを位置決めするための位置決め手段12となるものである。

【0021】上記突片11をガイド溝9に沿ってスライドさせると、図2に示すようにレンズ5が180°回転し、その上下向きが変わる。すなわち、遠用領域Aが下側に位置し、近用領域Bが上側に位置する。なお、遠近両用眼鏡1を着用して前方を自然に見た時の視線が常にレンズ5の境界線Cより上側を通過するように、つまり図1では視線が遠用領域Aを通り、図2では視線が近用領域Bを通るようにフレーム2を設計するのが好ましい。

【0022】この遠近両用眼鏡1を使用する場合は、突片11をスライドさせ、見る物に応じてレンズ5の上下向きを合わせる。即ち、遠くを見る時は視線が遠用領域Aを通るようにレンズ5の上下向きを合わせ、手元を見る時は視線が近用領域Bを通るようにレンズ5の上下向きを合わせる。

【0023】こうすれば、遠くを見る時も手元を見る時も常に一定の視線角度で物を見ることが出来る。したがって、長時間手元を見続ける必要がある場合でも、視線を長い間下向きに保つことなく自然な視線で見ることが出来るので、眼の疲労が非常に少なくなる。しかも、位置決め手段12によってレンズ5の上下向きを迅速に合わせることが出来るので、使い勝手が非常に良い。

【0024】図4は、本発明の第2実施例を示す遠近両

用眼鏡21の斜視図である。この遠近両用眼鏡21のフレーム22は、環状に形成された左右のリム部23と、その間を連結するブリッジ部24と、上記リム部23から後方に延びる左右一対のテンプル部25とを有して構成されている。

【0025】上記リム部23には円形のレンズ26が回転可能に保持されている。このレンズ26には、第1実施例のレンズ5と同様に、境界線Cを挟んで遠用領域Aと近用領域Bとが上下に設けられている。そして、レンズ26にはリム部23に形成されたガイド溝27に嵌合する突片28が設けられている。上記ガイド溝27および突片28は位置決め手段29を構成するもので、突片28をガイド溝27に沿ってスライドさせれば、第1実施例の場合と同様にレンズ26がリム部23内で180°回転し、遠用領域Aと近用領域Bの上下位置が入れ替わる。

【0026】さて、左右のリム部23の内側には鼻当て部31が設けられている。この鼻当て部31は着用者の鼻に当たるパッド状に形成されており、フレーム22全体の上下向きを反転させても使用可能なように上下2方向に形成されている。つまり、この鼻当て部31は通常の眼鏡のものよりも上下方向に長くされ、略くの字形の形状を持ち、その中央部がステー32によってリム部23に取り付けられている。

【0027】一方、前記テンプル部25は蝶番33によってリム部23に枢着され、矢印αで示す方向に回動可能となっていて、リム部23側に畳み込むことができる。テンプル部25の後部は、例えば二股形に造形され、その両肢が着用者の耳に当てられる耳あて部34となっている。つまり耳あて部34も上下2方向に形成されており、フレーム22全体の上下向きを反転させても遠近両用眼鏡21を使用することができるようになっている。

【0028】また、テンプル部25には、その軸方向の長さを調節可能にする長さ調節手段35と角度を調節可能にする角度調節手段36が設けられている。

【0029】上記長さ調節手段35は、例えばテンプル部25の中間部を伸縮自在のテレスコピック状にして設けたもので、テンプル部25の後半部が前半部に対して伸縮するようになっている。その際、テンプル部25後半部の摺動には適切な摺動抵抗を付与するか、もしくはノッチを設けて段階的に伸縮するようにし、遠近両用眼鏡21の着用時においてテンプル部25が無用な伸縮を起こさないようにする必要がある。

【0030】また、前記角度調節手段36は前記蝶番33と上記長さ調節手段35との間に蝶番状に設けられており、テンプル部25を矢印βで示す方向に回動可能とさせている。その際、テンプル部25の矢印β方向への回動には若干の摩擦抵抗が伴うようにし、着用時にリム部23の自重でテンプル部25が自然に回動することが

ないようにしておく必要がある。

【0031】以上のように構成された遠近両用眼鏡21によれば、突片28をスライドさせてレンズ26をリム部23内で180°回転させるか、あるいはフレーム22全体の上下向きを反転させるかの2通りの方法でレンズ26の上下向きを反転させて遠用領域Aと近用領域Bの位置を入れ替えることができる。したがって、遠近の切り替えが非常にに行い易く便利なものとなる。

【0032】しかも、テンプル部25に長さ調節手段35および角度調節手段36が設けられているので、フレーム22全体の上下向きを反転させて着用する場合でも、テンプル部25の長さやリム部23の角度を変えて着用状態を調節することができ、違和感が全くない。

【0033】さて、図5、6、7は、それぞれ本発明の第3実施例を示す遠近両用眼鏡の正面図、側面図、ならびに平面図である。この遠近両用眼鏡41のフレーム42は、例えば角型に形成された左右のリム部43と、その間を連結するブリッジ部44と、上記リム部43から後方に延びる左右一対のテンプル部45とを有して構成されている。

【0034】上記リム部43にはレンズ46が保持されている。このレンズ46には遠用領域Aと近用領域Bとが境界線Cを挟んで上下に設けられている。また、左右のリム部43の内側には鼻当て部47が設けられている。この鼻当て部47は、第2実施例における遠近両用眼鏡21と同様に、着用者の鼻に当たるパッド状に形成され、フレーム42全体の上下向きを反転させても使用可能なように上下2方向に形成されている。

【0035】一方、前記テンプル部45は蝶番48（図7参照）によってリム部43に枢着されている。そして、テンプル部45の後部に設けられた耳あて部49も、フレーム42全体の上下向きを反転させても使用可能なように上下2方向に形成されている。即ち、図6に示すように耳あて部49は魚の尾のような形状を持ち、その上下の曲線部49a、49bが耳に掛かる部分となる。なお、図6中に示す破線に沿って耳あて部49を切り欠き、軽量化を図ることもできる。

【0036】また、テンプル部45には、その軸方向の長さを調節可能にする長さ調節手段51と角度を調節可能にする角度調節手段52が設けられている。

【0037】上記長さ調節手段51は、例えば前記耳あて部49をテンプル部45の軸方向にスライド可能とし、さらに位置決め用のノッチ53を設けたものである。

【0038】一方、前記角度調節手段52は、テンプル部45の前方に蝶番状に設けられており、テンプル部45を上下方向に回動できるようにしている。テンプル部45の回動には若干の摩擦抵抗が伴うようにされ、遠近両用眼鏡の41着用時にリム部43の自重でテンプル部45が自然に回動しないようになっている。

【0039】このように構成された遠近両用眼鏡41は、フレーム42全体の上下向きを反転させればレンズ46の上下向きを反転させて遠用領域Aと近用領域Bの位置を入れ替えることができる。したがって、遠くを見る時も手元を見る時も常に一定の視線角度で物を見ることができ、眼の疲労が少ない。

【0040】また、テンプル部45に長さ調節手段51と角度調節手段52とが設けられているので、フレーム42全体の上下向きを反転させた場合でも、テンプル部45の長さやリム部43の角度を変えて着用状態を調節することができ、違和感がない。

【0041】図8は、テンプル部の変形例を示す斜視図である。このテンプル部61は、丸パイプ状に形成されたテンプル本体62と、このテンプル本体62の後端に装着される耳あて部63とからなる。上記耳あて部63には挿入ロッド64が形成されており、この挿入ロッド64がテンプル本体62の後端から回動かつ伸縮可能に挿入される。このため、耳あて部63はテンプル本体62に対して γ 方向に回動するとともに前後方向にも摺動する。したがって、耳あて部63を回動させて図中の δ 位置に置けば眼鏡の上下向きを反転させて使用することができ、耳あて部63を前後方向にスライドさせればテンプル部61の長さを自由に調節することができる。その際、耳あて部63の摺動や回動には適切な摩擦抵抗等を付与して、耳あて部63が眼鏡着用者の意に反する回動や伸縮を起こさないようにする必要がある。

【0042】

【発明の効果】以上説明したように本発明に係る遠近両用眼鏡は、上下一側に遠用領域が設けられ、他側に近用領域が設けられた左右一対のレンズをフレームのリム部に設けた遠近両用眼鏡において、上記レンズの上下向きを反転できるように、レンズを上記リム部内で回動可能に保持したものである。

【0043】こうすれば、遠くを見る時は視線が遠用領域を通るようにレンズの上下向きを合わせ、手元を見る時は視線が近用領域を通るようにレンズの上下向きを合わせて常に一定の視線角度で物を見ることができる。このため、例えば長時間手元を見続ける場合でも視線を長い間下向きに保つことなく自然な視線で見ることができ、眼の疲労が非常に少なくなる。

【0044】また、上記レンズの上下向きを位置決めする位置決め手段を設けたので、レンズの上下向きを迅速に合せることができ、使い勝手が非常に良い。

【0045】さらに、フレーム全体の上下向きを反転させても使用可能なように、鼻当て部および耳あて部を上下2方向に形成したので、リム部内でレンズのみを回転させる、もしくはフレーム全体の上下向きを反転させるという2通りの方法でレンズの上下向きを反転させて遠用領域と近用領域の位置を入れ替えることができ、非常に使い易く便利である。

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【0046】しかも、テンプル部に長さ調節手段および角度調節手段が設けられたので、フレーム全体の上下向きを反転させても着用する場合でも違和感が全くない。

【図面の簡単な説明】

【図1】本発明の第1実施例を示すもので、遠用領域が上側に位置し、近用領域が下側に位置した状態を示す遠近両用眼鏡の正面図。

【図2】遠用領域が下側に位置し、近用領域が上側に位置した状態を示す遠近両用眼鏡の正面図。

【図3】図1のIII-III線に沿う遠近両用眼鏡の断面図。

【図4】本発明の第2実施例を示す遠近両用眼鏡の斜視図。

【図5】本発明の第3実施例を示す遠近両用眼鏡の正面図。

【図6】同側面図。

【図7】同平面図。

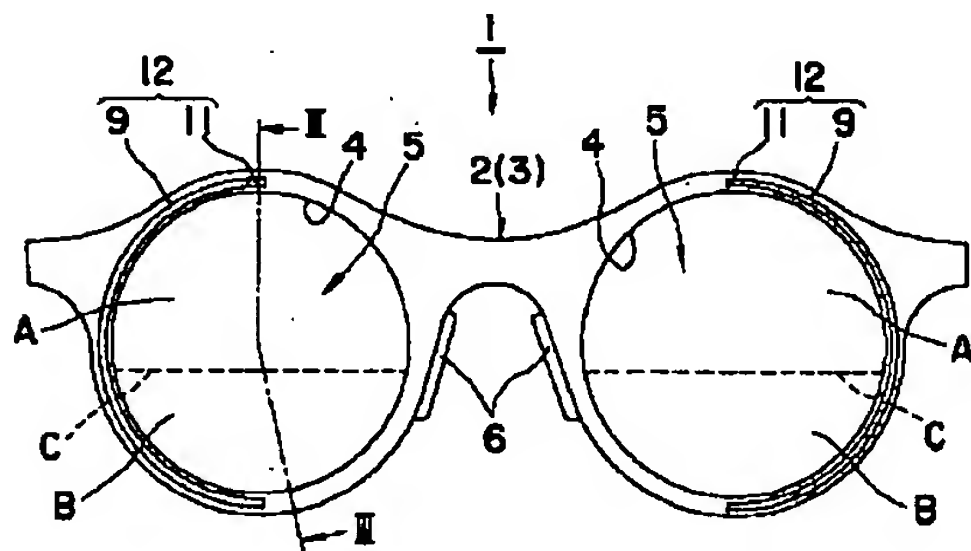
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【図8】テンプル部の変形例を示す斜視図。

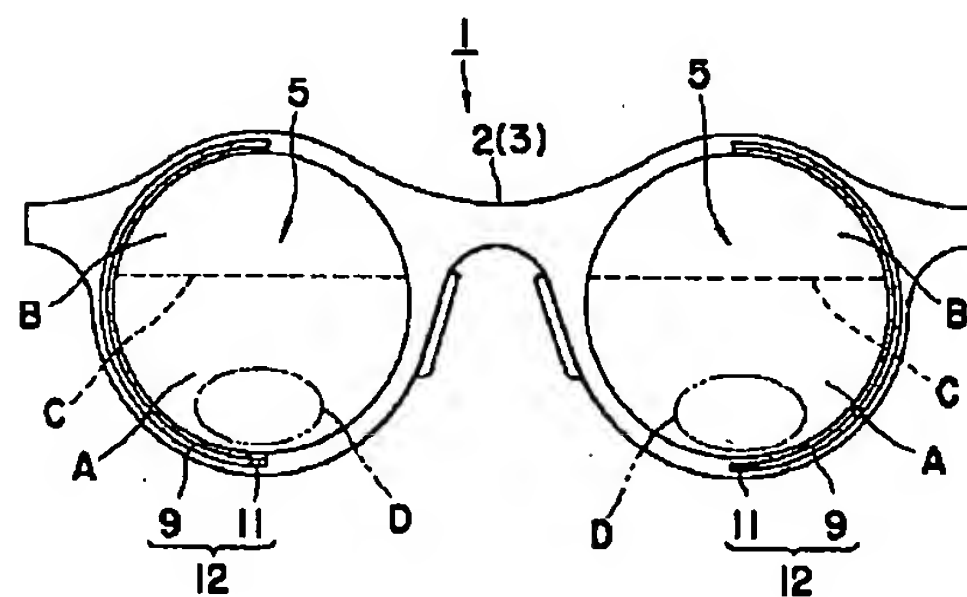
【符号の説明】

- 1, 21, 41 遠近両用眼鏡
- 2, 22, 42 フレーム
- 3, 23, 43 リム部
- 5, 26, 46 レンズ
- 9, 27 位置決め手段を構成するガイド溝
- 11, 28 位置決め手段を構成する突片
- 12, 29 位置決め手段
- 25, 41, 45 テンプル部
- 31, 47 鼻当て部
- 34, 49 耳当て部
- 35, 51 長さ調節手段
- 36, 52 角度調節手段
- A 遠用領域
- B 近用領域

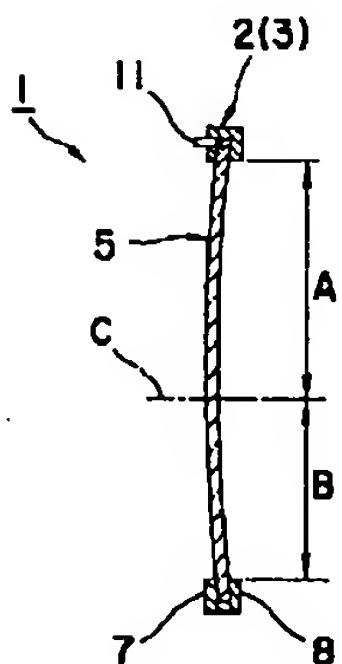
【図1】



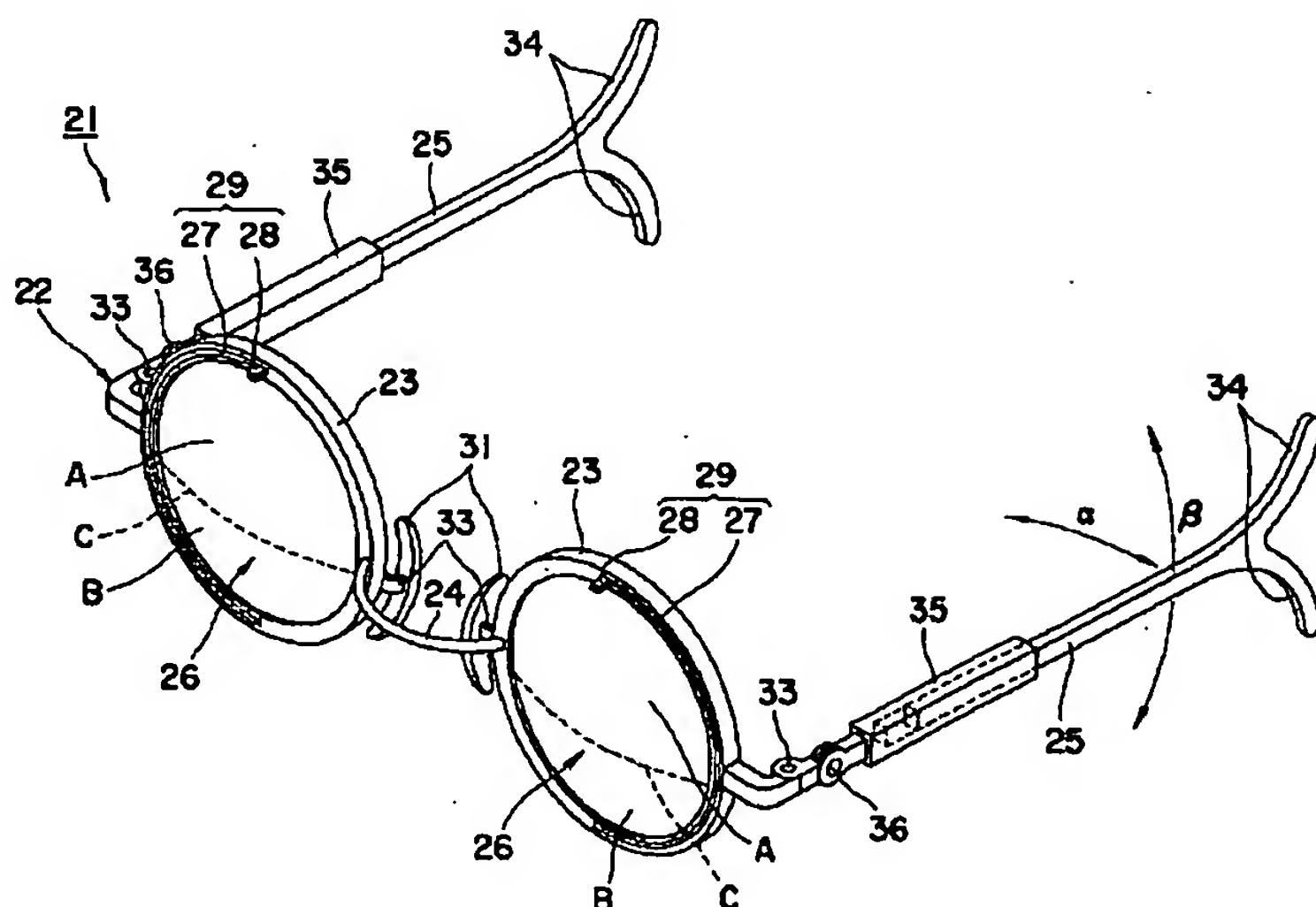
【図2】



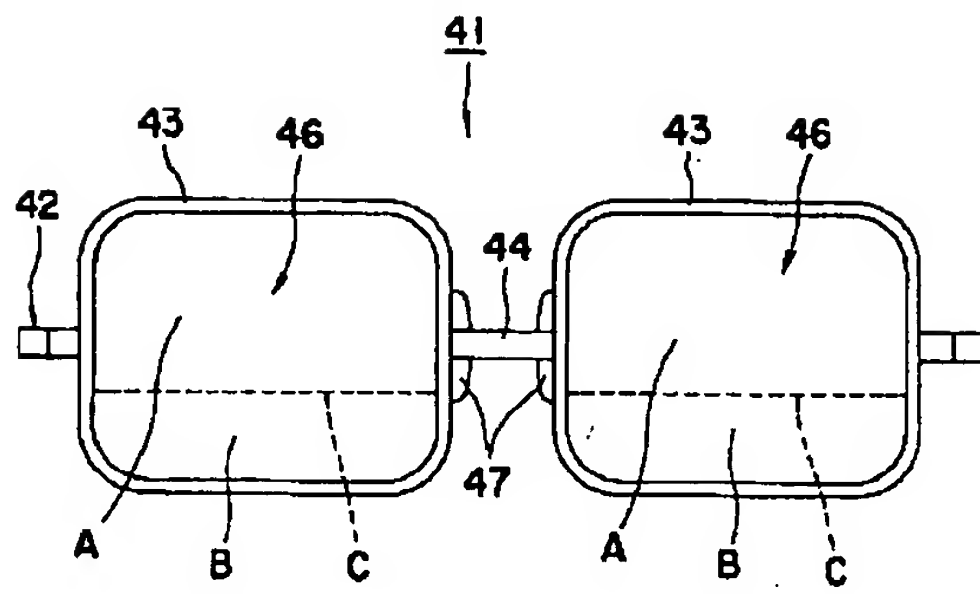
【図3】



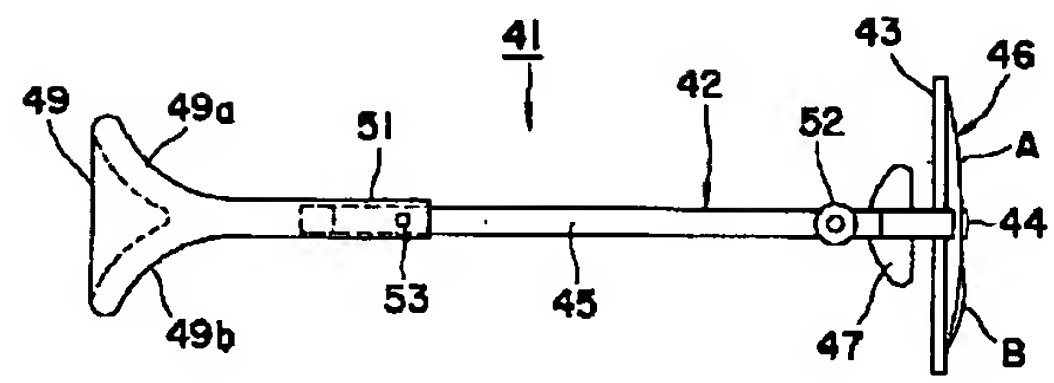
【図4】



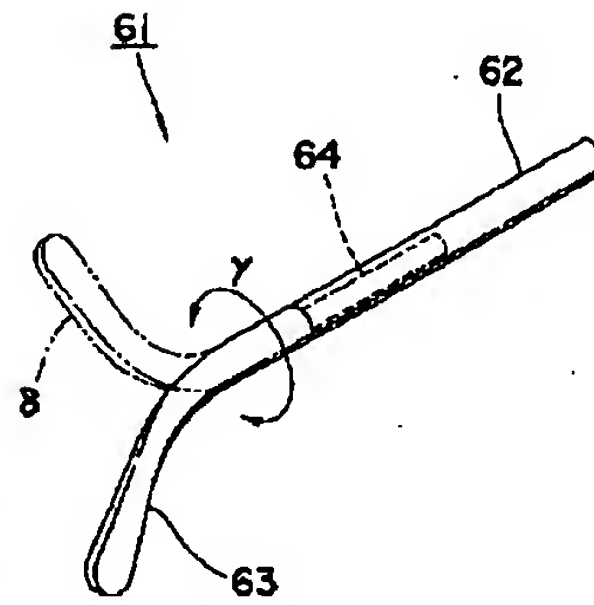
【図5】



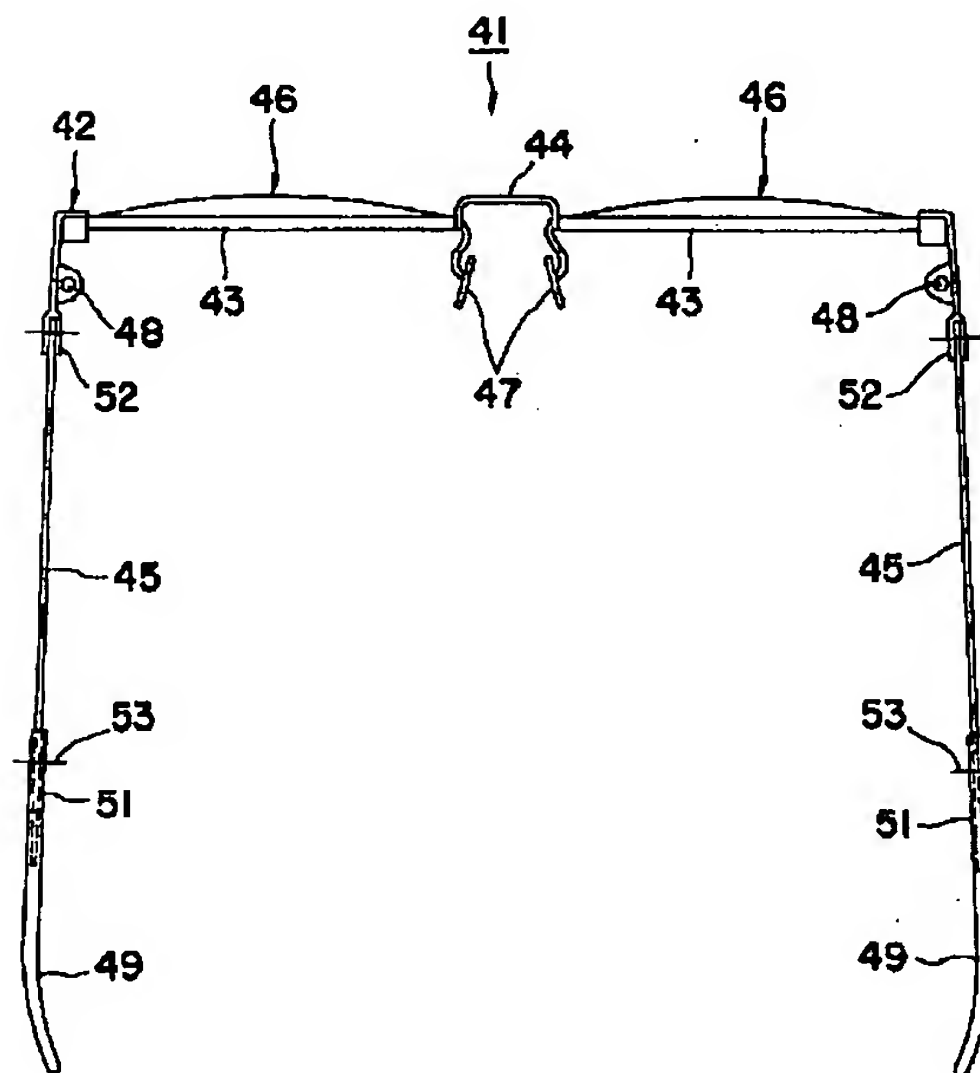
【図6】



【図8】



【図7】



PAT-NO: JP407159733A
DOCUMENT-IDENTIFIER: JP 07159733 A
TITLE: FAR AND NEAR BIFOCAL SPECTACLES
PUBN-DATE: June 23, 1995

INVENTOR-INFORMATION:
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COUNTRY N/A

APPL-NO: JP05310627
APPL-DATE: December 10, 1993

INT-CL (IPC): G02C005/04

ABSTRACT:

PURPOSE: To enable both far and near viewing at a specified visual field angle.

CONSTITUTION: Both far and near bifocal spectacles 121 provided with a far sight region A on one vertical side and a near sight region B on the other side and are provided with a pair of right and left lenses 26 in rim parts 323 of a frame 222 are formed by holding the lenses 26 rotatably within the rim parts 323 in such a manner that the vertical directions of the lenses 26 are invertable. At this time, the positioning means 29 for positioning the vertical directions of the lenses 26 is provided therein and pads 31 and hinges 33 are formed in two vertical directions to permit the use even if the vertical

direction over the entire part of the frame 22 is inverted. In addition, the spectacles are provided with length adjusting means 34 to make the length of the temple parts 25 of the frame 22 adjustable and angle adjusting means 35 to make the angle of the temple parts 25 adjustable.

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Notes:

1. Untranslatable words are replaced with asterisks (****).
2. Texts in the figures are not translated and shown as it is.

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Dictionary: Last updated 02/09/2007 / Priority:

FULL CONTENTS

[Claim(s)]

[Claim 1] Bifocal glasses characterized by holding a lens rotatably by the above-mentioned rim circles in the bifocal glasses which prepared the lens of one pair of right and left with which the field for ** was established in the upper-and-lower-sides 1 side, and the **** field was established in the other side in the rim part of the frame so that for [the above-mentioned lens] the upper and lower sides can be reversed.

[Claim 2] Bifocal glasses according to claim 1 which established a positioning means to position for [the above-mentioned lens] the upper and lower sides.

[Claim 3] Bifocal glasses according to claim 1 which formed the nose pad part and the earmuffs part in the up-and-down 2-way so that it might be usable, even if it reversed for [the above-mentioned whole frame] the upper and lower sides.

[Claim 4] Bifocal glasses according to claim 1 which established the length regulation means whose regulation of the direction length of an axis of the Temple part of a frame is enabled.

[Claim 5] Bifocal glasses according to claim 1 which established the angle regulation means whose regulation of the angle of the above-mentioned Temple part is enabled.

[Claim 6] In the bifocal glasses which prepared the lens of one pair of right and left with which the field for ** was established in the upper-and-lower-sides 1 side, and the **** field was established in the other side in the rim part of the frame Bifocal glasses characterized by forming a nose pad part and an earmuffs part in an up-and-down 2-way so that it may be usable, even if it reverses for [the above-mentioned whole frame] the upper and lower sides.

[Claim 7] Bifocal glasses according to claim 6 which established the length regulation means whose regulation of the direction length of an axis of the Temple part of the above-mentioned frame is enabled.

[Claim 8] Bifocal glasses according to claim 6 which established the angle regulation means whose regulation of the angle of the above-mentioned Temple part is enabled.

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the bifocal glasses it was able to be made to look at both distance at a fixed look angle.

[0002]

[Description of the Prior Art] The field for ** is established in the lens bottom, the **** field is established in the bottom, when seeing a long distance, common bifocal glasses level a look mostly, the field for ** is used for them, when seeing a hand, they lower a look and a **** field is used for them.

[0003]

[Problem to be solved by the invention] However, when a hand needs to continue being seen for a long time using such bifocal glasses, since the look must be maintained downward for a long time (when working reading, drafting, etc.), there is a difficulty that an eye gets tired very much.

[0004] This invention was made in order to solve the above-mentioned problem, and it aims at offering the bifocal glasses which can see both distance at a fixed look angle.

[0005]

[Means for solving problem] [the bifocal glasses concerning this invention] in order to attain the above-mentioned purpose As indicated to Claim 1, in the bifocal glasses which prepared the lens of one pair of right and left with which the field for ** was established in the upper-and-lower-sides 1 side, and the **** field was established in the other side in the rim part of the frame, the lens was rotatably held by the above-mentioned rim circles so that for [the above-mentioned lens] the upper and lower sides could be reversed.

[0006] Moreover, as indicated to Claim 2, a positioning means to position for [the above-mentioned lens] the upper and lower sides was established.

[0007] Furthermore, as indicated to Claim 3, even if it reversed for [the above-mentioned whole frame] the upper and lower sides, the nose pad part and the earmuffs part were formed in the up-and-down 2-way so that it might be usable.

[0008] And as indicated to Claim 4, the length regulation means whose regulation of the direction length of an axis of the Temple part of a frame is enabled was established.

[0009] Moreover, as indicated to Claim 5, the angle regulation means whose regulation of the angle of the above-mentioned Temple part is enabled was established.

[0010] Furthermore, as indicated to Claim 6, the lens of one pair of right and left with which the field for ** was established in the upper-and-lower-sides 1 side, and the **** field was established in the other side is set to the bifocal glasses formed in the rim part of the frame. Even if it reversed for [the above-mentioned whole frame] the upper and lower sides, the nose pad part and the earmuffs part were formed in the up-and-down 2-way so that it might be usable.

[0011] And as indicated to Claim 7, the length regulation means whose regulation of the direction length of an axis of the Temple part of the above-mentioned frame is enabled was established.

[0012] Moreover, as indicated to Claim 8, the angle regulation means whose regulation of the angle of the above-mentioned Temple part is enabled was established.

[0013]

[Function] Whenever it unites for [a lens] the upper and lower sides so that a look may pass along the field for **, when seeing a long distance, and it unites for [a lens] the upper and lower sides so that a look may pass along a **** field when seeing a hand when using bifocal glasses with the above-mentioned composition, also when seeing a long distance, and also when seeing a hand, it can see at a fixed look angle.

[0014] Moreover, for [a lens] the upper and lower sides can be quickly united by having established a positioning means to position for [a lens] the upper and lower sides.

[0015] Furthermore, since it can be used even if it reverses for [the whole frame] the upper and lower sides, only a lens can be rotated in the rim department or the position of the field for ** of a lens and a **** field can be replaced by two kinds of methods of reversing for [the whole frame] the upper and lower sides.

[0016] And by having established the length regulation means and angle regulation means of the Temple part, even when reversing for [the whole frame] the upper and lower sides and wearing, it is comfortable.

[0017]

[Working example] One example of this invention is hereafter explained based on Drawings.

[0018] Drawing 1 and drawing 2 are the front views of the bifocal glasses in which the 1st example of this invention is shown, and drawing 3 is III-III of drawing 1 . It is the sectional view which meets a line. These bifocal glasses 1 are held possible [rotation of the circular lens 5] at the opening 4 of one pair of right and left prepared in the rim part 3 of the frame 2. In addition, between the lenses 5 on either side, the nose pad part 6 is formed in one with the rim part 3.

[0019] The field A for ** is established in the upper-and-lower-sides 1 side of a lens 5, and the **** field B is established in the other side. The field A for **** is a field in order to look at a long distance rather than a hand, and the portion of the transparency where the lens which suits nearsightedness, astigmatism, etc. is prepared in this field or which does not have a degree is prepared. On the other hand, the lens which can see a hand also in a longsighted case is prepared in the field B for **. In addition, the dashed line C shows the boundary line of the field A for **, and the **** field B. The position of this boundary line C is prepared in the shape of a straight line so that the area of the field A for ** may become larger than the area of the **** field B, for example, but it can also change the surface ratio and form of the field A for **, and the **** field B by shifting the position of a boundary line C or incurvating a boundary line C etc. Moreover, as shown, for example in drawing 2 , you may establish the lens field D of another kind in the field A for ** (or the **** field B).

[0020] As shown in drawing 3 , the periphery of a lens 5 is pinched by the flanges 7 and 8 of the rim part 3, and is held rotatably. The guide slot 9 in alignment with the outside semicircle of the lens 5 on either side is formed in the flange 7 by the side of front here (drawing 1 , two references), and the protruding piece 11 which protruded on the edge of a lens 5 has projected ahead from the above-mentioned guide slot 9. This guide slot 9 and protruding piece 11 serve as the positioning means 12 for positioning for [a lens 5] the upper and lower sides.

[0021] If the above-mentioned protruding piece 11 is made to slide along the guide slot 9, as shown in drawing

2, 180 degrees of lenses 5 will rotate, and for [the] the upper and lower sides will change. That is, the field A for ** is located in the bottom, and the field B for ** is located in the bottom. In addition, it is desirable to design a frame 2 so that a look may pass along the field A for ** by drawing 1 and a look may pass along the **** field B by drawing 2 so that the look when wearing the bifocal glasses 1 and seeing the front automatically may always pass above the boundary line C of a lens 5 that is,.

[0022] When using these bifocal glasses 1, a protruding piece 11 is made to slide and for [a lens 5] the upper and lower sides is united according to the thing to see. That is, for [a lens 5] the upper and lower sides is united so that a look may pass along the field A for **, when seeing a long distance, and for [a lens 5] the upper and lower sides is united so that a look may pass along the **** field B, when seeing a hand.

[0023] Whenever it carries out like this, also when seeing a long distance, and also when seeing a hand, a thing can be seen at a fixed look angle. Therefore, since it can see by a natural look, without having maintained the look downward for a long time even when a hand needs to continue being seen for a long time, fatigue of an eye decreases very much. And since for [a lens 5] the upper and lower sides can be quickly united by the positioning means 12, it is very user-friendly.

[0024] Drawing 4 is the perspective view of the bifocal glasses 21 in which the 2nd example of this invention is shown. The frame 22 of these bifocal glasses 21 has the rim part 23 of the right and left formed annularly, the bridge part 24 which connects the meantime, and the Temple part 25 of one pair of right and left prolonged in back from the above-mentioned rim part 23, and is constituted.

[0025] The circular lens 26 is held rotatably at the above-mentioned rim part 23. On both sides of the boundary line C, the field A for ** and the **** field B are established in this lens 26 up and down like the lens 5 of the 1st example. And the protruding piece 28 which fits into the guide slot 27 formed in the rim part 23 is formed in the lens 26. The above-mentioned guide slot 27 and a protruding piece 28 constitute the positioning means 29, if a protruding piece 28 is made to slide along the guide slot 27, 180 degrees of lenses 26 will rotate within the rim part 23 like the case of the 1st example, and the up-and-down position of the field A for ** and the **** field B will interchange.

[0026] Now, the nose pad part 31 is formed inside the rim part 23 on either side. This nose pad part 31 is formed in the shape of [equivalent to a wearer's nose] a pad, and even if it reverses for [the frame 22 whole] the upper and lower sides, it is formed in the up-and-down 2-way so that it may be usable. That is, rather than the thing of the usual glasses, this nose pad part 31 is lengthened, and has the form of the type of **** in the up-and-down direction, and that central part is attached to the rim part 23 by the stay 32.

[0027] On the other hand, on a hinge 33, said Temple part 25 is pivoted in the rim part 23, and rotation in the direction shown by Arrow alpha can be possible for it, and it can be collapsed in the rim part 23 side. the rear of the Temple part 25 -- two forks -- being modeled by type -- the -- both -- the leg serves as the addressing part 34 to an ear applied by a wearer's ear. That is, the addressing part 34 to an ear is also formed in the up-and-down 2-way, and even if it reverses for [the frame 22 whole] the upper and lower sides, the bifocal glasses 21 can be used.

[0028] Moreover, the angle regulation means 36 whose regulation of the length regulation means 35 and angle

whose regulation of the length of the direction of an axis is enabled is formed in the Temple part 25.

[0029] The above-mentioned length regulation means 35 is what made the intermediate part of the Temple part 25 telescopic [elastic], and prepared it, for example, and the second half part of the Temple part 25 expands and contracts it to the first portion. Give the suitable sliding resistance for sliding of the second half part of Temple part 25, or it is necessary to prepare a notch, to make it expand and contract gradually, and to make it the Temple part 25 not cause unnecessary elasticity at the time of wear of the bifocal glasses 21 in that case.

[0030] Moreover, said angle regulation means 36 is established in the shape of a hinge between said hinge 33 and the above-mentioned length regulation means 35, and rotation of the Temple part 25 is made to enable in the direction shown by Arrow beta. It is made for some frictional resistance to follow on rotation to the direction of arrow beta of the Temple part 25, and it is necessary to keep the Temple part 25 from rotating automatically by prudence of the rim part 23 at the time of wear in that case.

[0031] [rotate / 180 degrees of lenses 26 / a protruding piece 28 is made to slide and / according to the bifocal glasses 21 constituted as mentioned above, / within the rim part 23] Or for [a lens 26] the upper and lower sides can be reversed by two kinds of methods whether to reverse for [the frame 22 whole] the upper and lower sides, and the position of the field A for ** and the **** field B can be replaced. Therefore, a far and near change will become convenient that it is very easy to carry out.

[0032] And since the length regulation means 35 and the angle regulation means 36 are formed in the Temple part 25, even when reversing for [the frame 22 whole] the upper and lower sides and wearing, the length of the Temple part 25 and the angle of the rim part 23 can be changed, a wear state can be adjusted, and it is comfortable.

[0033] Now, drawing 5 , and 6 and 7 are the front view of the bifocal glasses in which the 3rd example of this invention is shown, respectively, a side view, and a top view. The frame 42 of these bifocal glasses 41 has the rim part 43 of the right and left formed in the square shape, for example, the bridge part 44 which connects the meantime, and the Temple part 45 of one pair of right and left prolonged in back from the above-mentioned rim part 43, and is constituted.

[0034] The lens 46 is held at the above-mentioned rim part 43. The field A for ** and the **** field B are established in this lens 46 up and down on both sides of the boundary line C. Moreover, the nose pad part 47 is formed inside the rim part 43 on either side. This nose pad part 47 is formed in the shape of [equivalent to a wearer's nose] a pad like the bifocal glasses 21 in the 2nd example, and even if it reverses for [the frame 42 whole] the upper and lower sides, it is formed in the up-and-down 2-way so that it may be usable.

[0035] On the other hand, said Temple part 45 is pivoted in the rim part 43 on the hinge 48 (refer to drawing 7). And even if the addressing part 49 to an ear prepared in the rear of the Temple part 45 also reverses for [the frame 42 whole] the upper and lower sides, it is formed in the up-and-down 2-way so that it may be usable. That is, as shown in drawing 6 , the addressing part 49 to an ear has form like the tail of a fish, and serves as a portion which requires the curvilinear parts 49a and 49b of the upper and lower sides for an ear. In addition, the addressing part 49 to an ear can be cut and lacked along with the dashed line shown in drawing 6 , and a weight saving can also be attained.

[0036] Moreover, the angle regulation means 52 whose regulation of the length regulation means 51 and angle whose regulation of the length of the direction of an axis is enabled is enabled is formed in the Temple part 45.

[0037] The above-mentioned length regulation means 51 enables the slide of said addressing part 49 to an ear in the direction of an axis of the Temple part 45, for example, and forms the notch 53 further for positioning.

[0038] Said angle regulation means 52 is established in the shape of a hinge ahead of the Temple part 45, and enables it to rotate the Temple part 45 in the up-and-down direction on the other hand. Some frictional resistance is made to be followed on rotation of the Temple part 45, and the Temple part 45 rotates automatically by prudence of the rim part 43 at the time of 41 wear of bifocal glasses.

[0039] Thus, if for [the frame 42 whole] the upper and lower sides is reversed, the constituted bifocal glasses 41 can reverse for [a lens 46] the upper and lower sides, and can replace the position of the field A for **, and the **** field B. Therefore, also when seeing a long distance, and also when seeing a hand, a thing can always be seen at a fixed look angle, and there is little fatigue of an eye.

[0040] Moreover, since the length regulation means 51 and the angle regulation means 52 are formed in the Temple part 45, even when for [the frame 42 whole] the upper and lower sides is reversed, the length of the Temple part 45 and the angle of the rim part 43 can be changed, a wear state can be adjusted, and it is comfortable.

[0041] Drawing 8 is the perspective view showing the modification of the Temple part. This Temple part 61 consists of a Temple main part 62 formed in the shape of a circle pipe, and an addressing part 63 to an ear attached in the back end of this Temple main part 62. The insertion rod 64 is formed in the above-mentioned addressing part 63 to an ear, and this insertion rod 64 is inserted possible [rotation and elasticity] from the back end of the Temple main part 62. For this reason, the addressing part 63 to an ear slides also in the direction of order while rotating in the direction of gamma to the Temple main part 62. Therefore, if the addressing part 63 to an ear is rotated and it puts on delta position in a figure, it can be used being able to reverse for [glasses] the upper and lower sides, and if the addressing part 63 to an ear is made to slide in the direction of order, the length of the Temple part 61 can be adjusted freely. The suitable frictional resistance for sliding and rotation of the addressing part 63 to an ear etc. is given, and it is necessary to make it the addressing part 63 to an ear not cause the rotation or elasticity contrary to a glasses wearer's mind in that case.

[0042]

[Effect of the Invention] [the bifocal glasses applied to this invention as explained above] In the bifocal glasses which prepared the lens of one pair of right and left with which the field for ** was established in the upper-and-lower-sides 1 side, and the **** field was established in the other side in the rim part of the frame, a lens is rotatably held by the above-mentioned rim circles so that for [the above-mentioned lens] the upper and lower sides can be reversed.

[0043] Whenever it carries out like this, for [a lens] the upper and lower sides can be united, and a thing can be seen at a fixed look angle so that a look may pass along a **** field, when uniting for [a lens] the upper and lower sides so that a look may pass along the field for **, when seeing a long distance, and seeing a hand. For this reason, it can see by a natural look, without having maintained the look downward for a long time, even

when continuing seeing a hand for a long time, for example, and fatigue of an eye decreases very much.

[0044] Moreover, since a positioning means to position for [the above-mentioned lens] the upper and lower sides was established, for [a lens] the upper and lower sides can be united quickly, and it is very user-friendly.

[0045] Furthermore, since the nose pad part and the earmuffs part were formed in the up-and-down 2-way so that it might be usable even if it reversed for [the whole frame] the upper and lower sides It is [can rotate only a lens in the rim department, or can reverse for / a lens / the upper and lower sides by two kinds of methods of reversing for / the whole frame / the upper and lower sides, and the position of the field for ** and a **** field can be replaced, and] very easy to use and is convenient.

[0046] And since the length regulation means and the angle regulation means were prepared in the Temple part, it is comfortable even when wearing, even if it reverses for [the whole frame] the upper and lower sides.

[Brief Description of the Drawings]

[Drawing 1] The front view of the bifocal glasses in which the 1st example of this invention is shown and the state where the field for ** was located in the bottom and the field for ** was located in the bottom is shown.

[Drawing 2] The front view of the bifocal glasses in which the state where the field for ** was located in the bottom and the field for ** was located in the bottom is shown.

[Drawing 3] III-III of drawing 1 Sectional view of the bifocal glasses which meet a line.

[Drawing 4] The perspective view of the bifocal glasses in which the 2nd example of this invention is shown.

[Drawing 5] The front view of the bifocal glasses in which the 3rd example of this invention is shown.

[Drawing 6] This side view.

[Drawing 7] This top view.

[Drawing 8] The perspective view showing the modification of the Temple part.

[Explanations of letters or numerals]

1, 21, 41 Bifocal glasses

2, 22, 42 Frame

3, 23, 43 Rim part

5, 26, 46 Lens

9, 27 Guide slot which constitutes a positioning means

11, 28 Protruding piece which constitutes a positioning means

12, 29 Positioning means

25, 41, 45 Temple part

31, 47 Nose pad part

34, 49 Earmuffs part

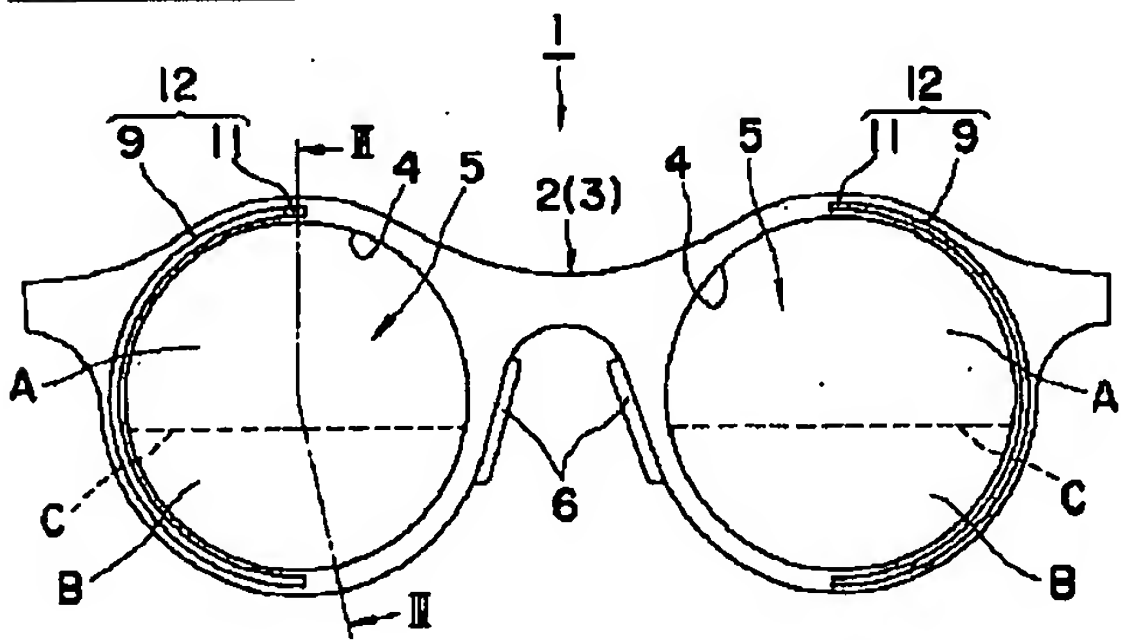
35, 51 Length regulation means

36, 52 Angle regulation means

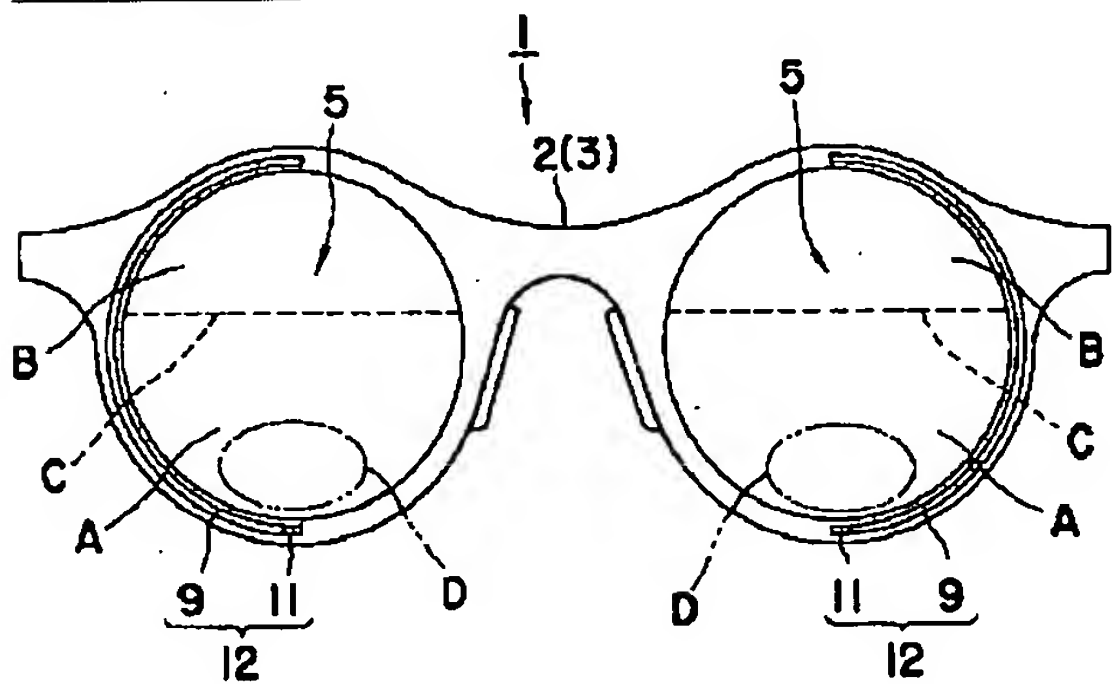
A The field for **

B The field for **

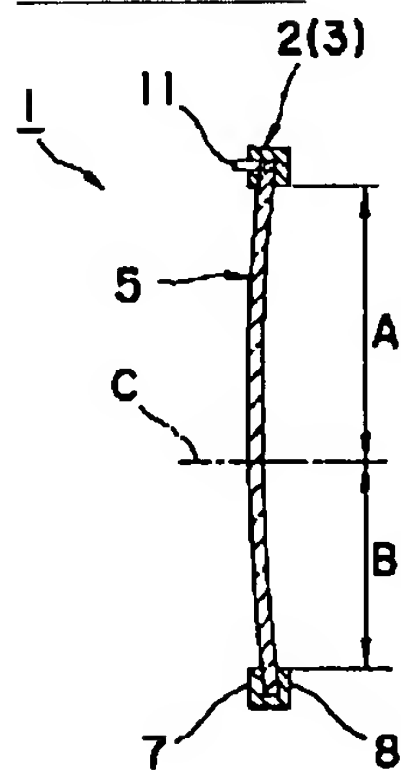
[Drawing 1]



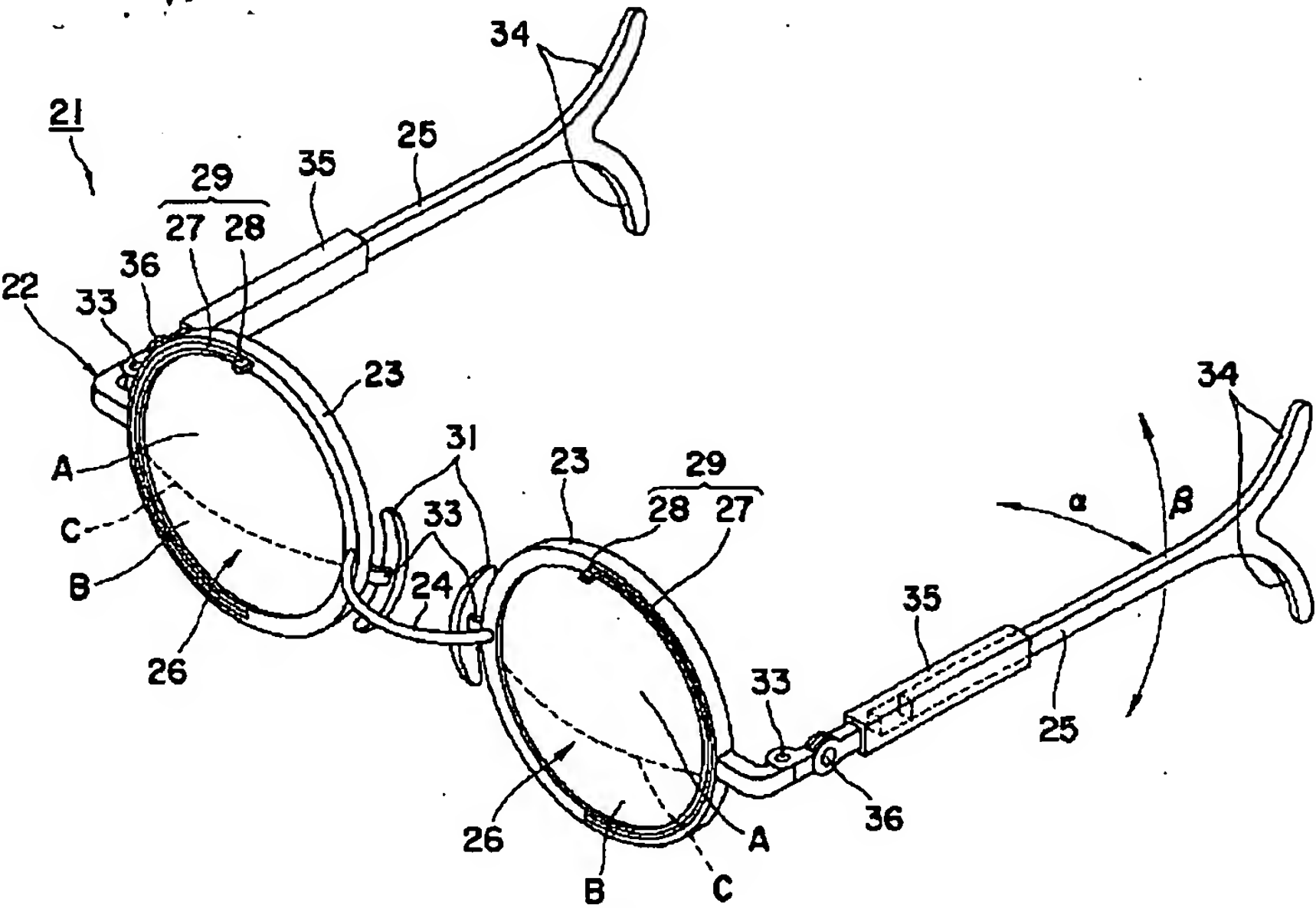
[Drawing 2]



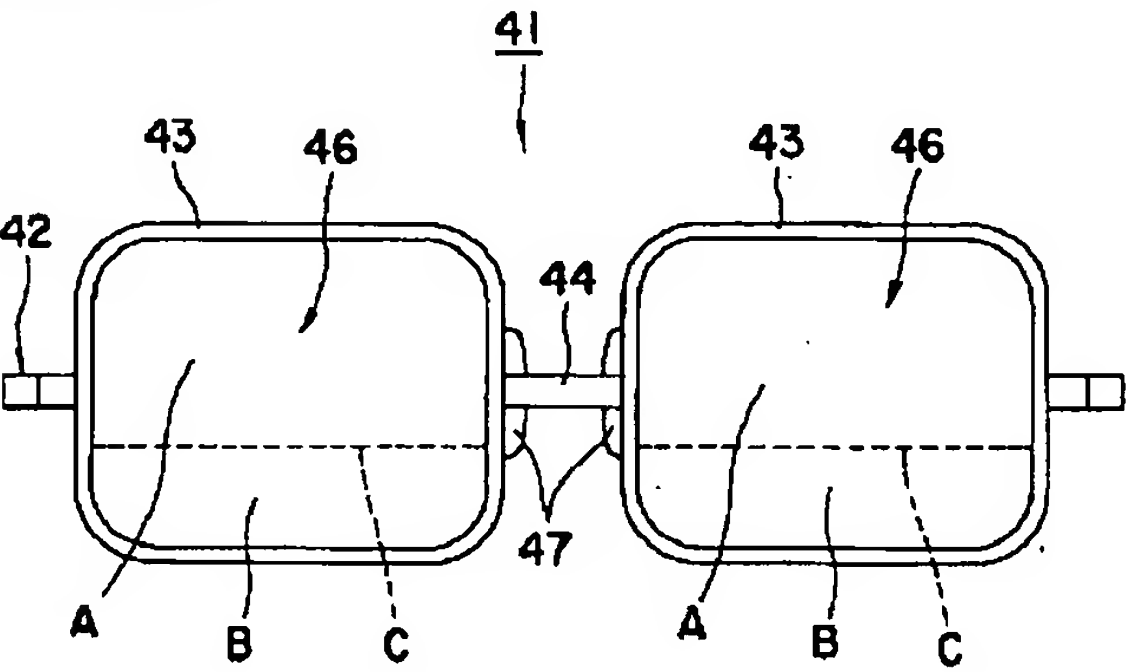
[Drawing 3]



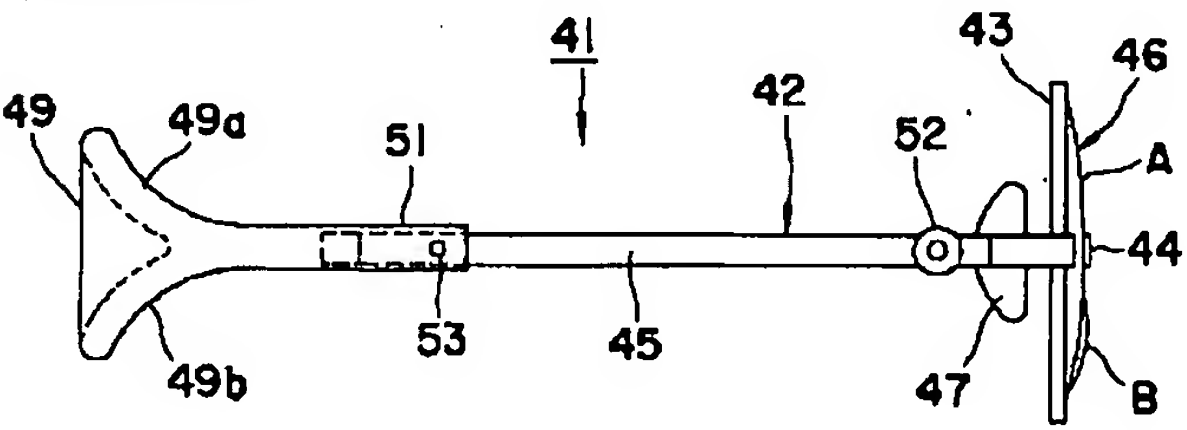
[Drawing 4]



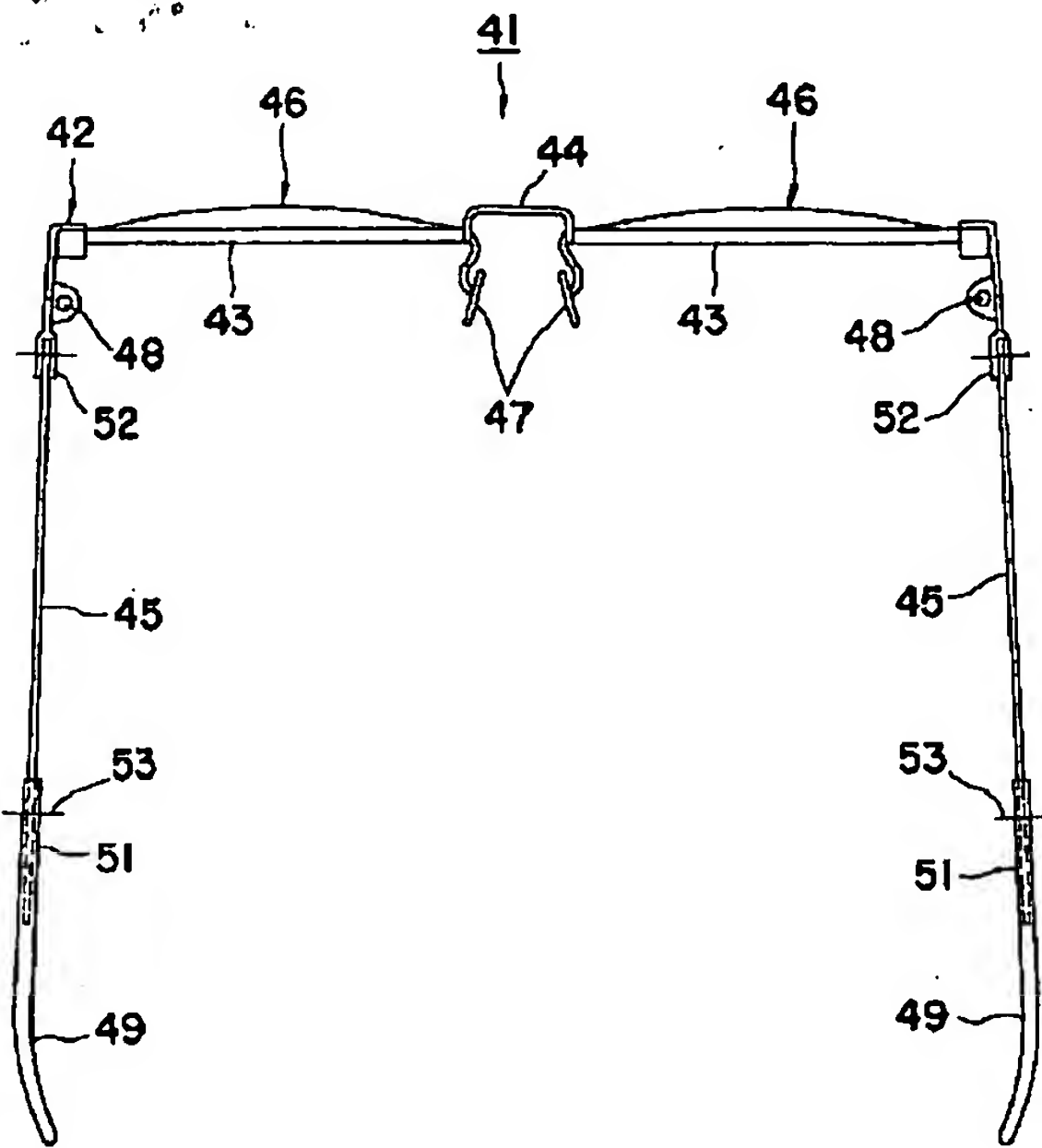
[Drawing 5]



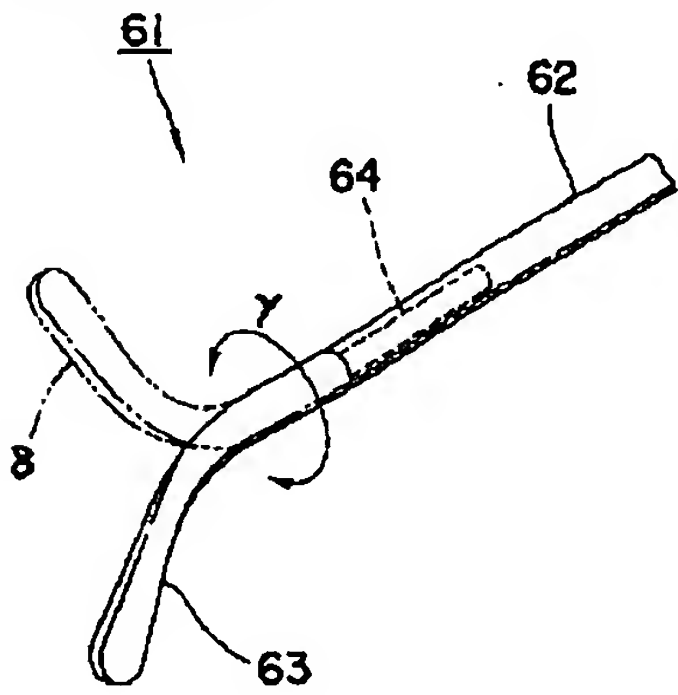
[Drawing 6]



[Drawing 7]



[Drawing 8]



[Translation done.]